

# *Safety*

*People ♦ Readiness ♦ Quality of Service*

**SECNAV Safety Brief**  
**28 November 2001**



# *Our Current Situation*

**FY01 was:**

**LOWEST EVER** aviation Class-A flight mishap rate

- USN/USMC and USMC
- 24% reduction (USN/USMC): FY92-96 vs. FY97-01

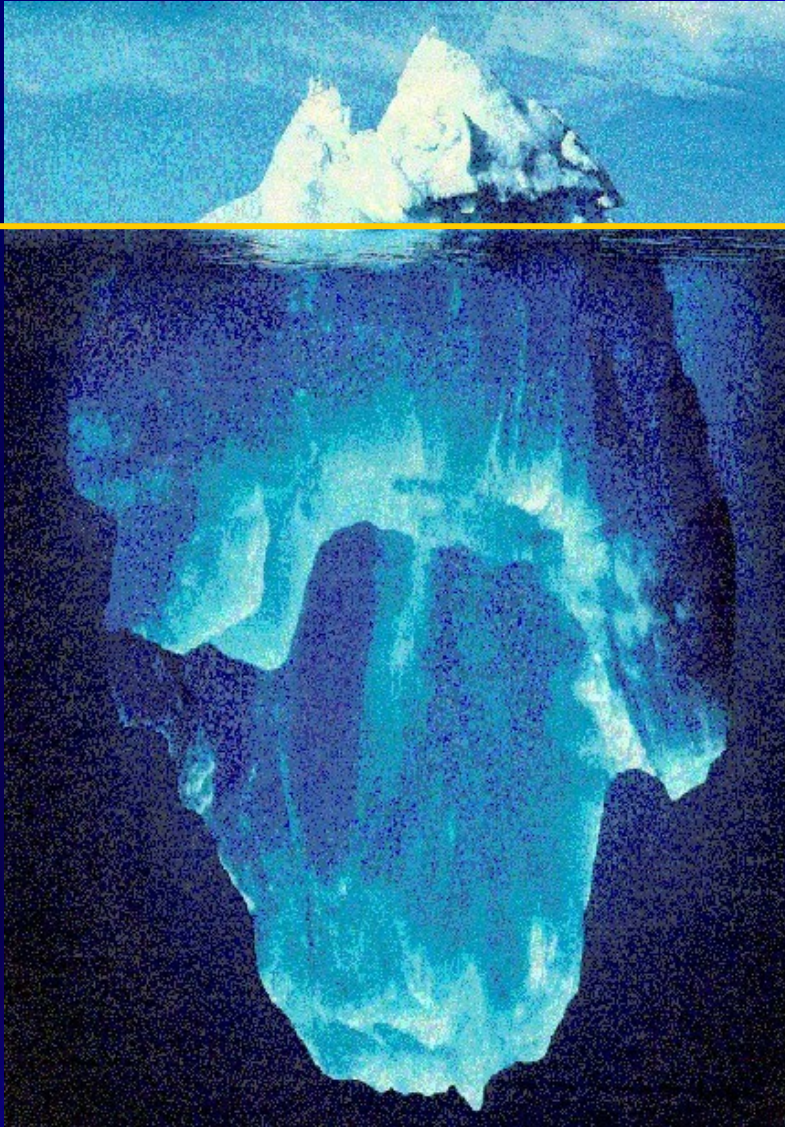
**LOWEST EVER** private motor vehicle (PMV) fatality rate

- USN/USMC and USMC
- 12% reduction (USN/USMC): FY92-96 vs. FY97-01

**LOWEST EVER** shore/recreation fatality rate

- USMC
- 33% reduction (USN/USMC): FY92-96 vs. FY97-01

# *Mishap Costs*



## ***Direct Cost***

- **\$4 Billion and 970 Lives**

## ***Indirect Cost***

- **Loss of Manpower**
- **Delay in Doing Business**
- **Corporate Reputation**
- **Investigation Costs**
- **Litigation**



# Naval Safety Center Services



## ***Mission***

**Train and motivate  
Sailors and  
Marines  
to prevent mishaps  
and save lives**

## ***Vision***

**The most combat-ready and  
safest Navy and Marine  
Corps.**

## ***Responsibility***

**Collect  
Analyze  
Disseminate**



## ***ON THE ROAD***

- Culture workshops
- Unit surveys
- ORM unit training
- Mishap investigations
- USMC MTT seminars
- PCO briefings

## ***AWARENESS***

- 26 magazines printed (473,000 copies)
- Interactive CD's
- Safety Center web page
- Acquisition process in-roads
- Safety advisories
- Customer information requests (3,600+ database queries per month)



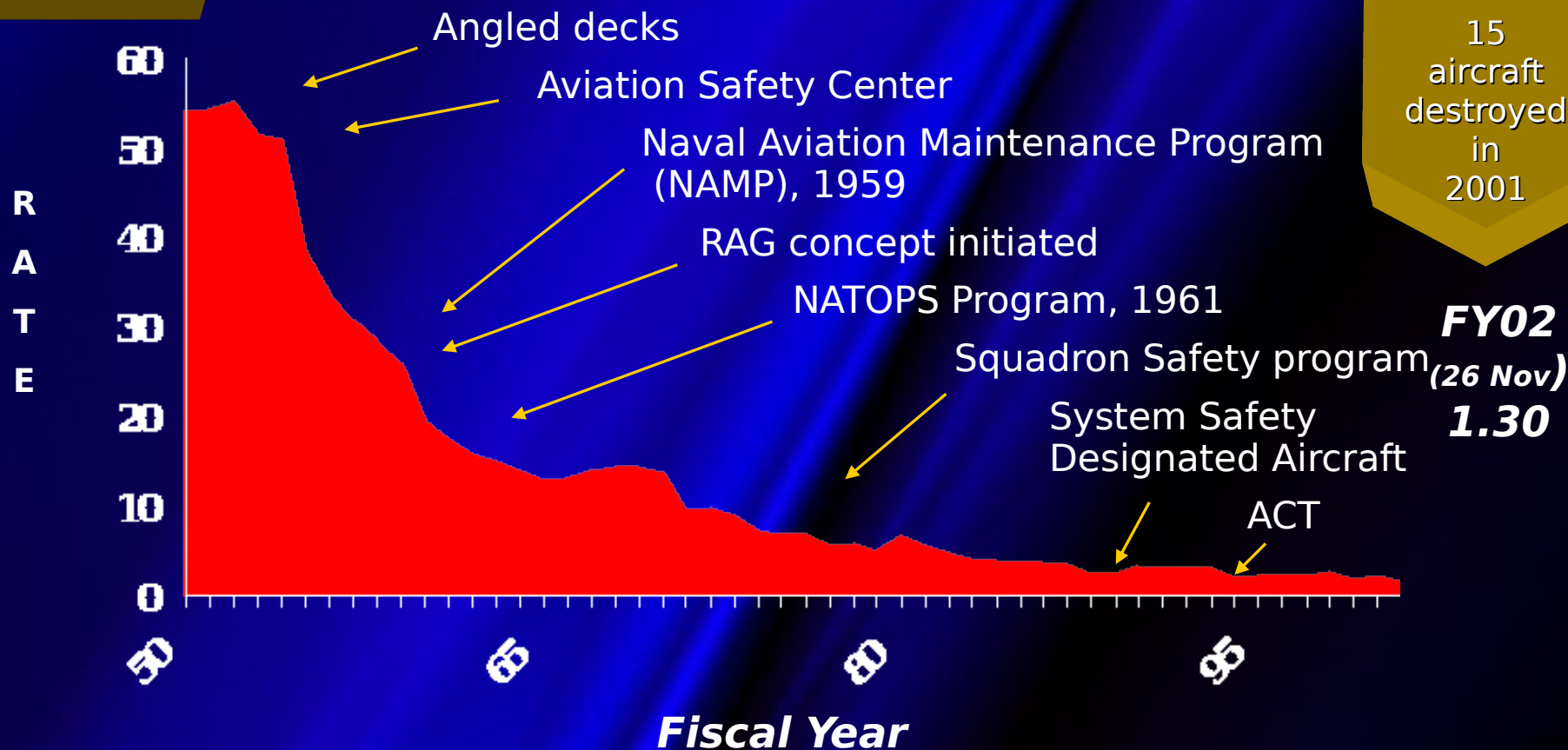
# Naval Aviation Mishap Rate

## FY50-02

776  
aircraft  
destroyed  
in  
1954

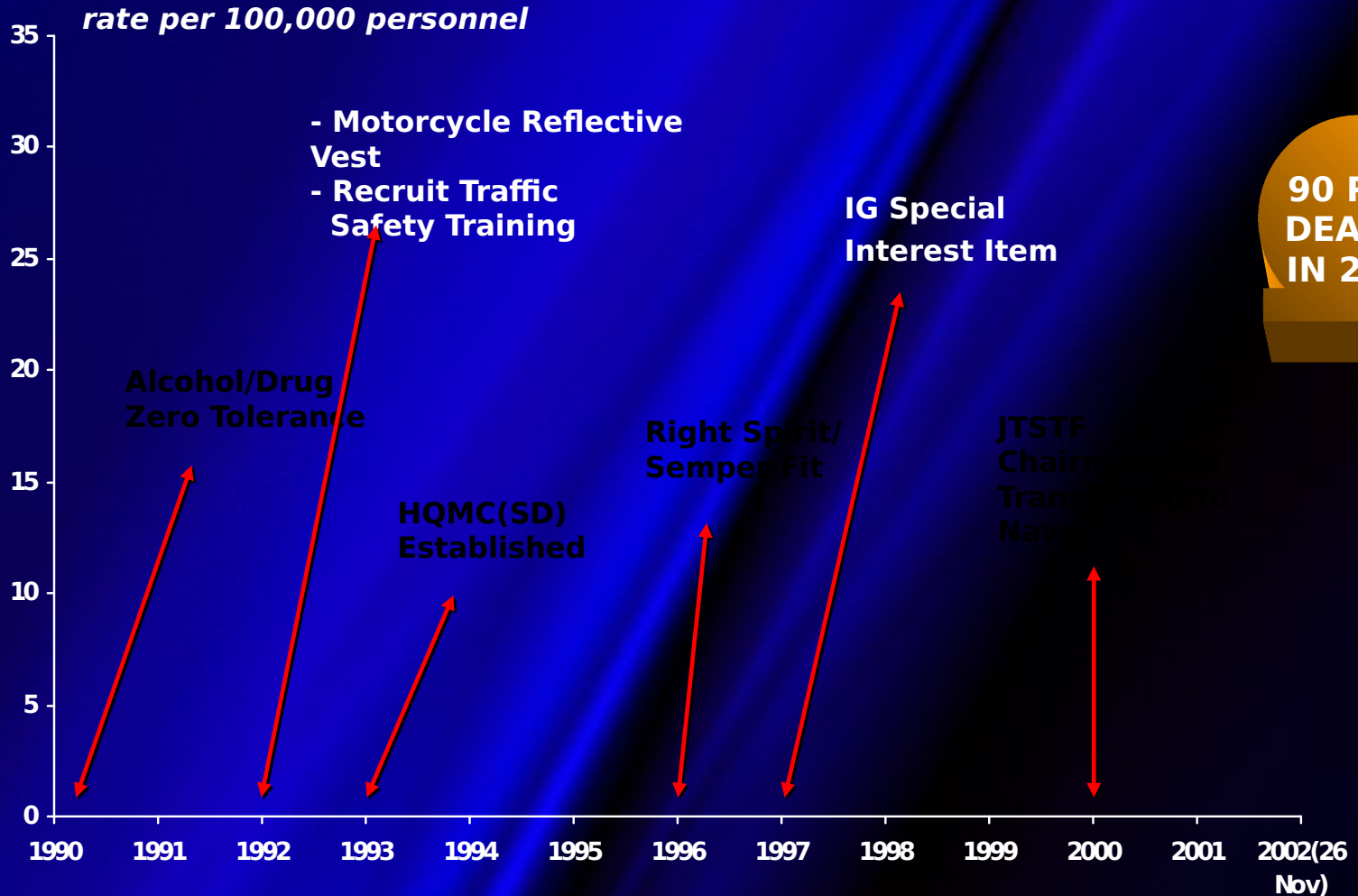
**FY01**  
**1.23**

15  
aircraft  
destroyed  
in  
2001



# Navy/Marine PMV Fatality Rate

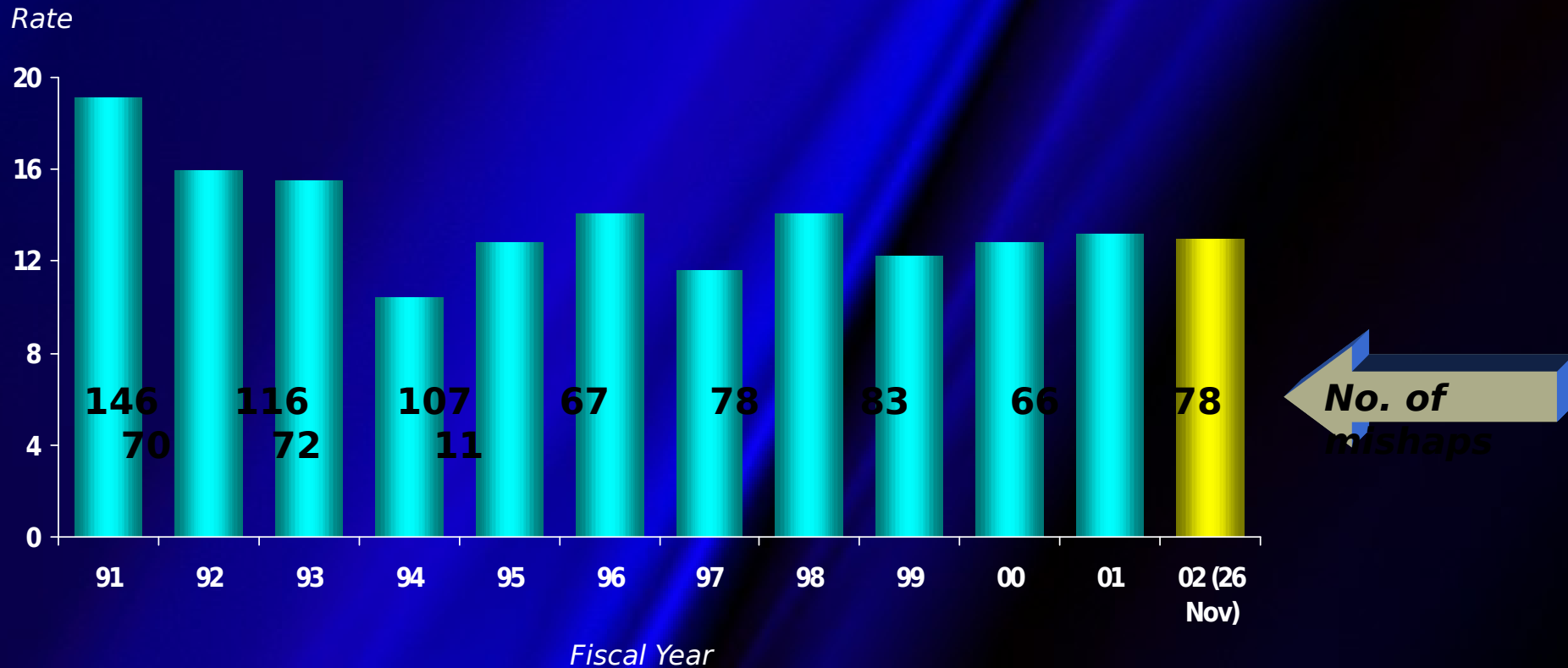
**229 PMV  
DEATHS  
IN 1990**



**90 PMV  
DEATHS  
IN 2001**

# Navy/Marine Total Class-A Operational Mishap Rate

FY01: 13.17 (72 mishaps) was 6th lowest

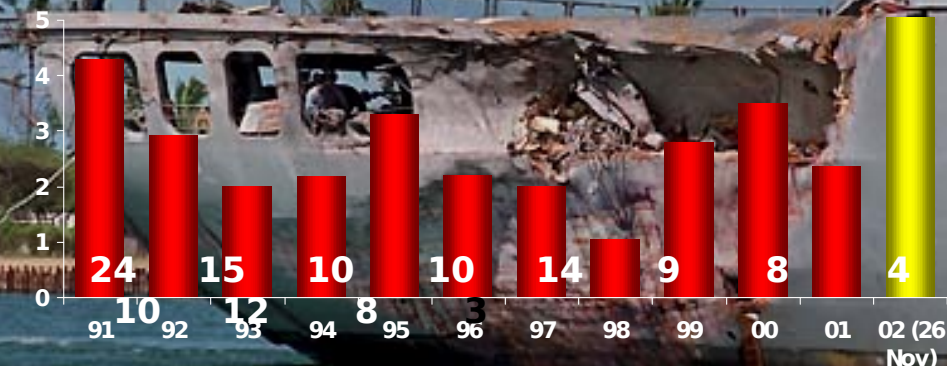




# Navy/Marine Class-A Mishap Rates

## Navy Afloat Class-A Mishap Rate

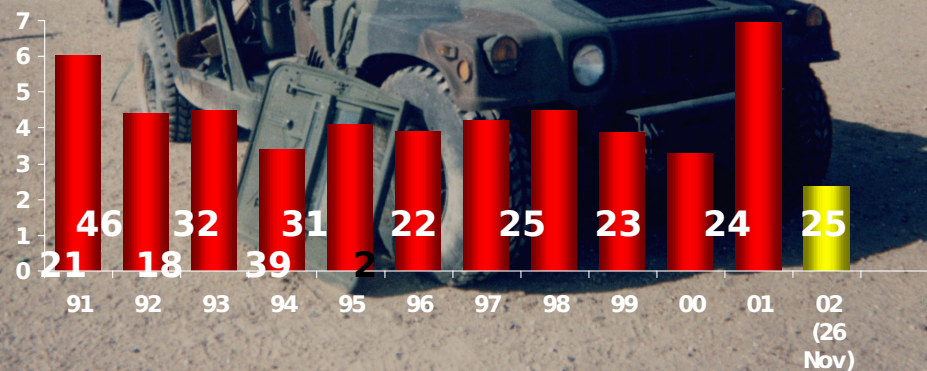
per 100 ships per year



## Navy/Marine Class-A Shore/Ground Mishap Rate

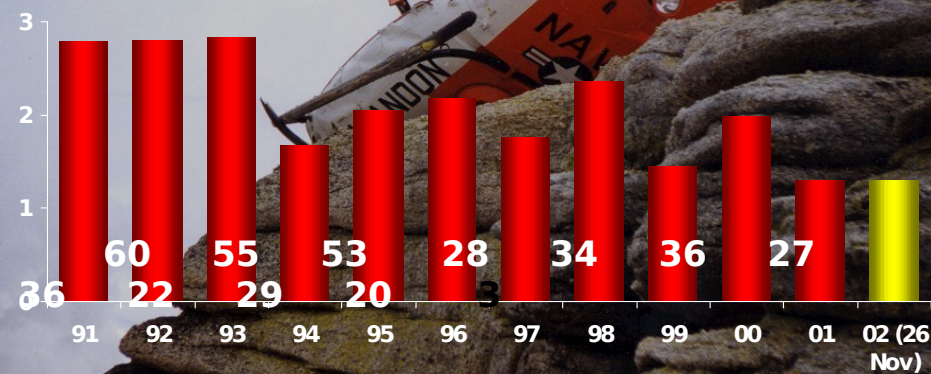
(Motor Vehicle not included)

per 100,000 personnel per year



## Navy/Marine Class-A Flight Mishap Rate

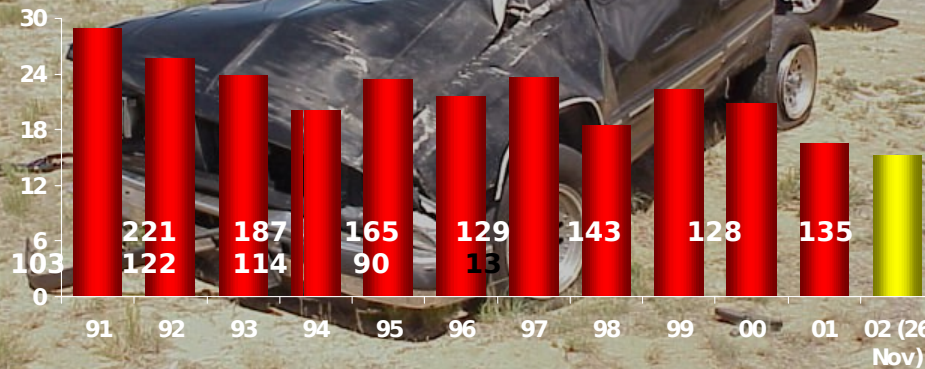
per 100,000 flight hours



# Navy/Marine Fatality Rates

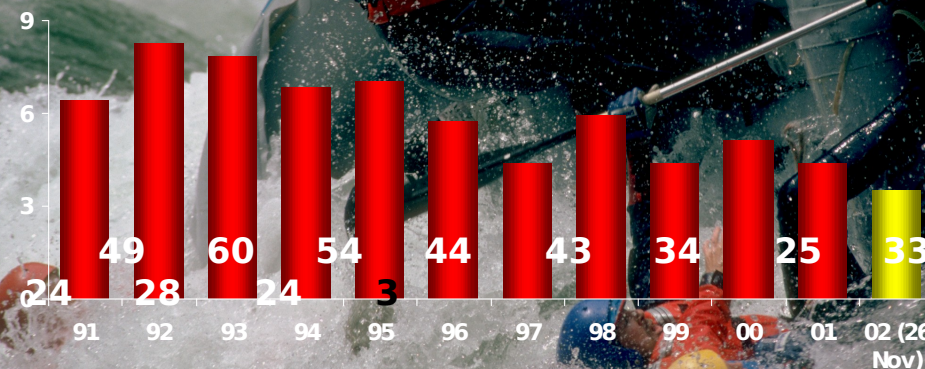
## Navy/Marine PMV Fatality Rate

per 100,000 personnel per year



## Navy/Marine Shore/Recreation Fatality Rate

per 100,000 personnel per year





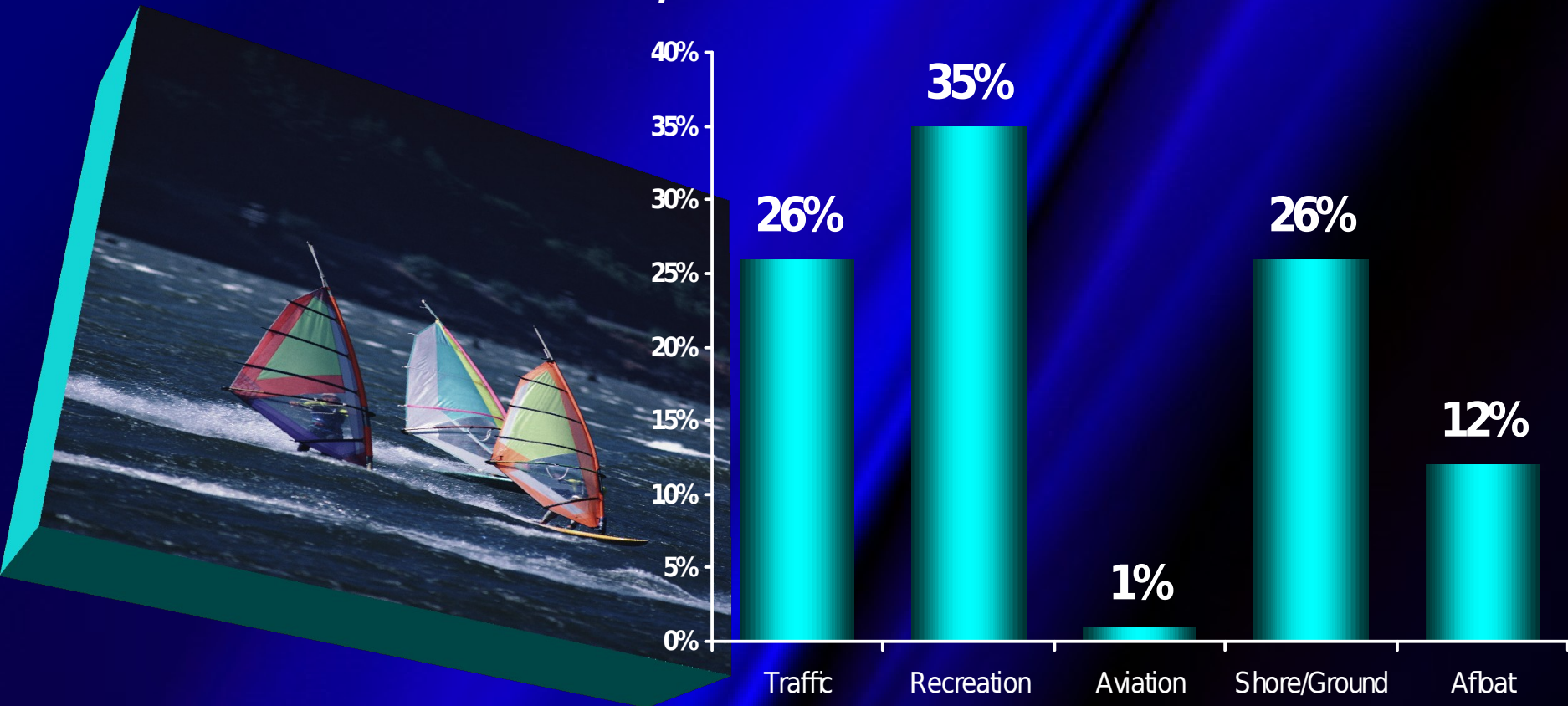
# How People Died in Mishaps

## Navy and Marine Corps, FY97-01



# How People Were Injured in Mishaps

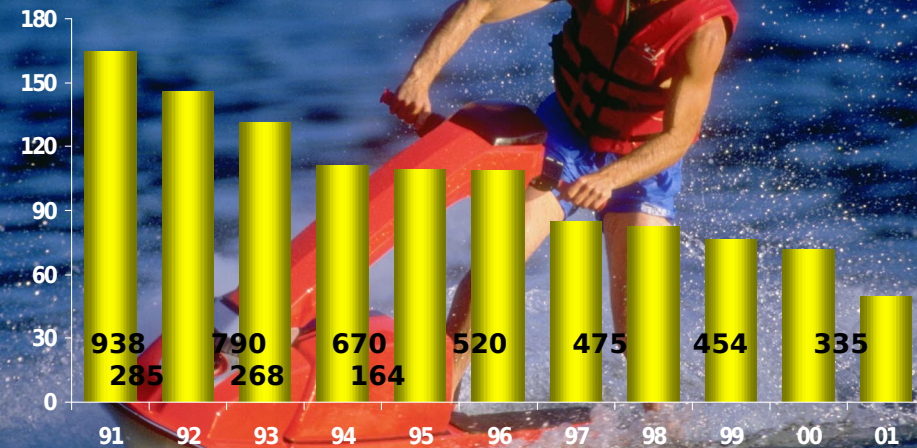
*Navy and Marine  
Corps, FY96-00*



**8,900  
Injuries**

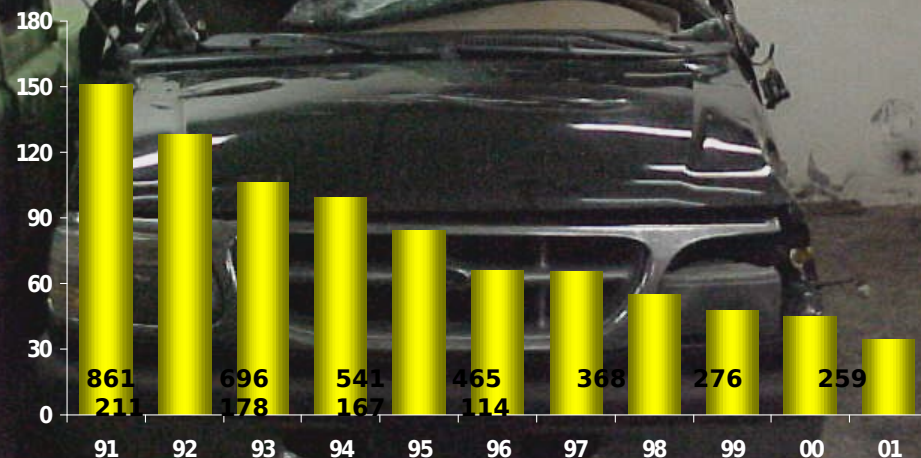
# Navy/Military Injury Rates

*Navy/Military Shore/Recreation  
Injury Rate  
per 100,000 personnel per year*



*Navy/Military Personnel PMV Injury Rate*

*per 100,000 personnel per year*




*injury = five or more  
lost workdays or  
permanent disability*



# *Findings*

## ***INVESTIGATIONS:***

- **Poor airmanship/seamanship**
  - **Skill-based error rate** 
  - **Poor crew coordination**
  - **Poor headwork**
- 

## ***SURVEYS:***

- **Inadequate resources**
- **Command over-committed**
- **Manning/unavailable experience**
- **Cutting corners/PMS**
- **Poor communication**
- **Technical publications**




# *Human Error and Challenges*

## **Human Error in Operational Mishaps FY96-00**

**Aviation =  
77%**

**Afloat = 86%**

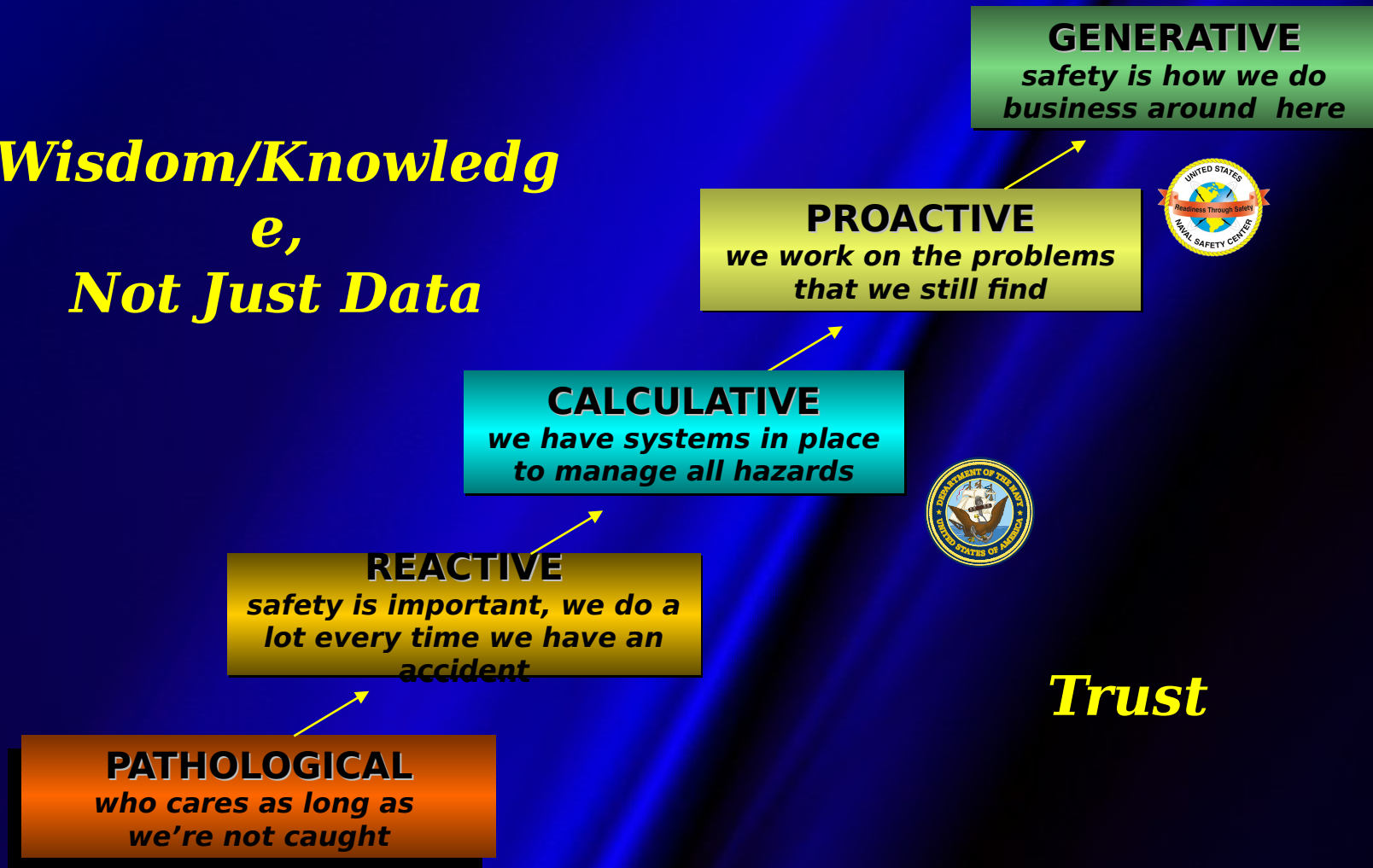
**Shore =  
96%**

- 
- Reluctance to say “No”
  - Doing more with less/same
  - “The way we’ve always done it”
  - Ego
  - Cost of doing business



# Comparing Culture

**Wisdom/Knowledge,  
Not Just Data**



**Trust**

# *Recommended Solutions*

- **Leadership**
- **Culture**
- **Leveraging technology**
- **Resources & acquisition**
- **Mentoring/training**
- **Culture standards**
- **Manning**
- **Checks & balances**

**ORM**

# *ORM Works*

- ⇒ **Nimitz Battlegroup**
- ⇒ **RimPAC 2000**
- ⇒ **Shiphandling Mishaps**
- ⇒ **Marine Air Wings**
- ⇒ **Decline in Human-Error  
Class A's**

# *Leadership is Responding*

**VADM John B. Nathman**

**COMNAVAIRFOR/COMNAVAIRPAC:**

“Commanders have a fundamental responsibility to protect our personnel and material resources and to accept only that level of risk necessary to accomplish the mission.”

“It’s up to us to ensure that operational risk management is an integral part of our daily planning and execution routines.”

“ORM alignment for the naval aviation force is key to our continued operational success.”

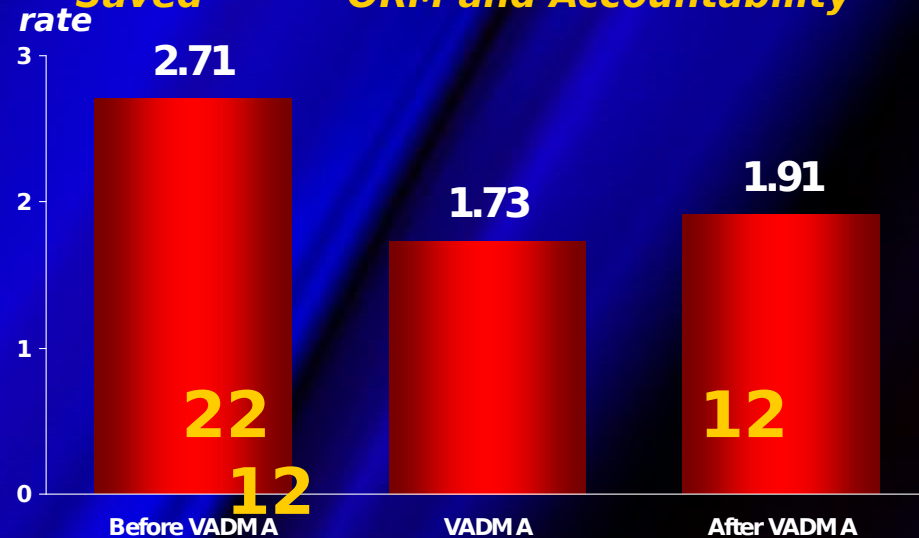
**ADM Robert J. Natter**

**CINCLANTFLT:**

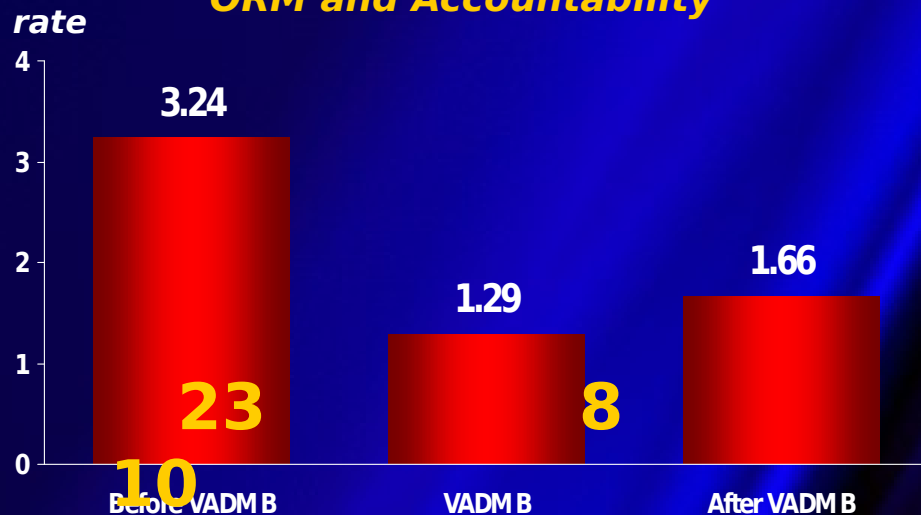
“You influence more people by the example you set than by all the words you could ever say.”

# Leadership Involvement

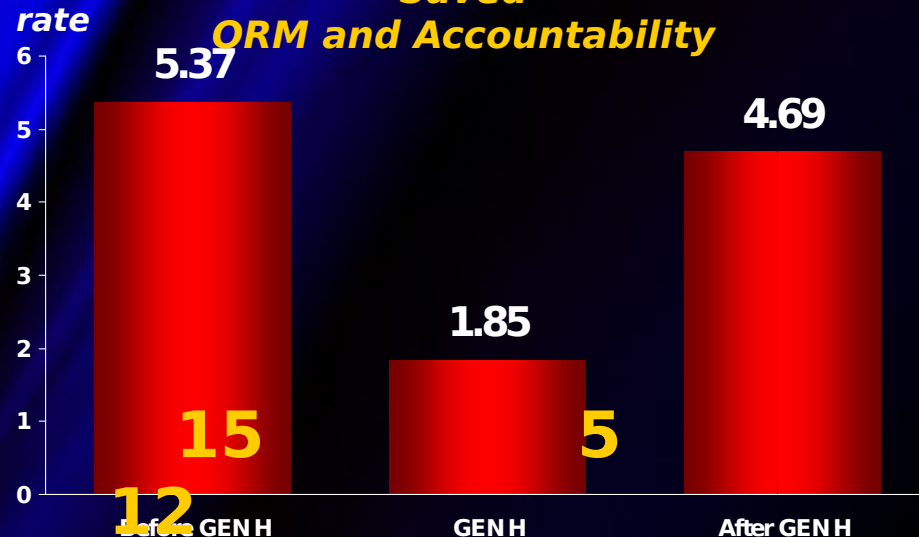
**AIRLANT**  
**6 Class-A Flight Mishaps, 6 Lives & \$205M Saved**  
**ORM and Accountability**



**AIRPAC**  
**12 Class-A Flight Mishaps, 17 Lives & \$421M Saved**  
**ORM and Accountability**

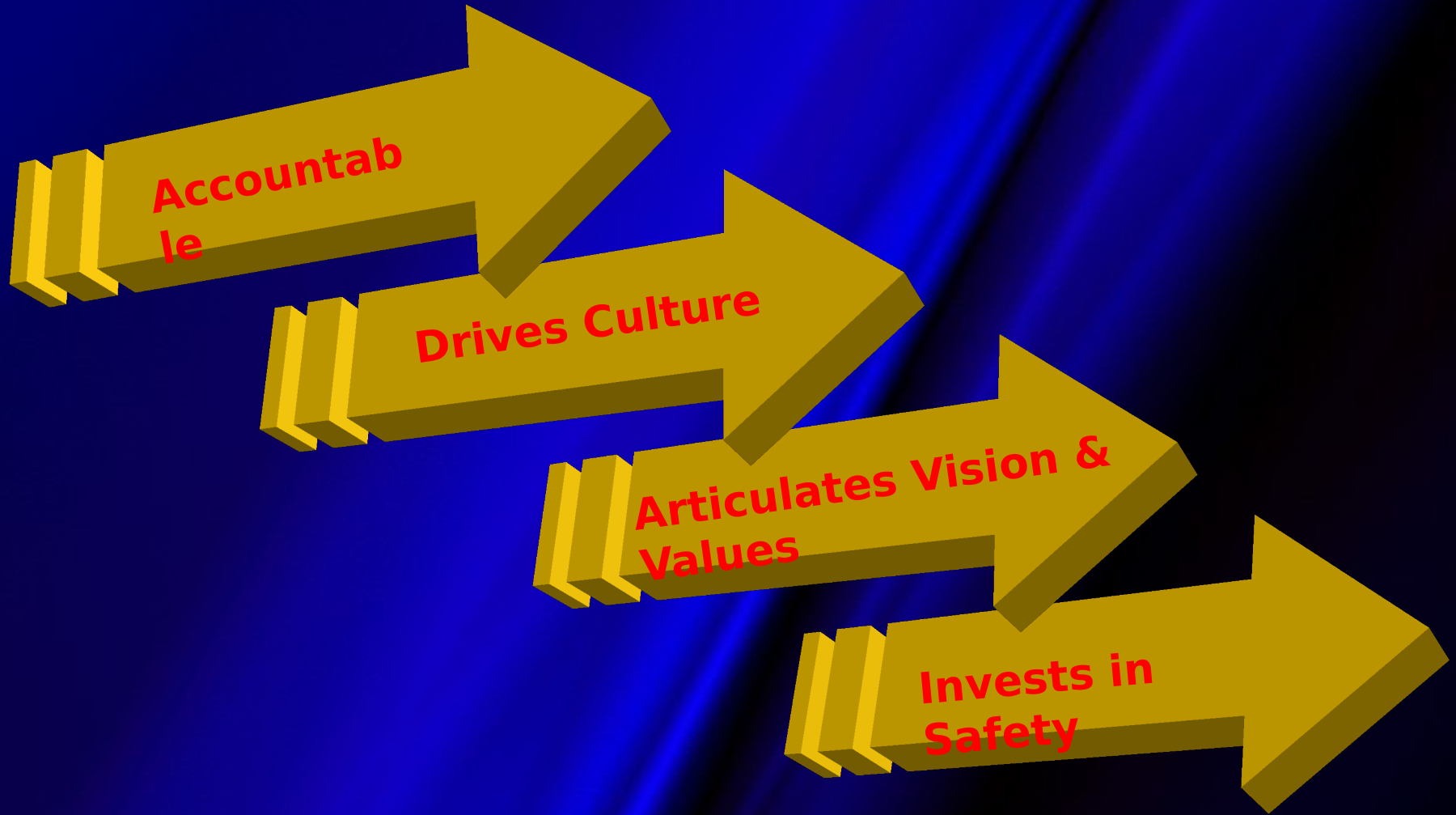


**MARFORLANT**  
**9 Class-A Flight Mishaps, 8 Lives & \$147M Saved**  
**ORM and Accountability**





# *Leadership Makes the Difference*



# *In Summary*

*SECNAV Safety Brief  
28 November 2001*

*RDML David Architzel, USN  
Commander, Naval Safety Center*

*Back-up Slide*

# *Marine Corps Order for Conducting High-Risk Training*

